

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Systems Software Specialist III (Technical)	D20/HQ Information Technology/Security/Network Services	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Network Systems Engineer	900-170-1367-xxx	

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

**GENERAL STATEMENT:**

Under administrative direction of a Systems Software Specialist III (Sup), the incumbent functions as a technical lead on the most complex network and security system projects related to the Caltrans Wide Area Network (WAN). This includes working independently as a technical expert or in a lead capacity on network and security issues and helping guide other information technology professionals in network and security application design and integration. The incumbent will participate in the design, implementation and maintenance of the wide area network, network security, automated network security control systems, and proprietary security software including the proper operation and configuration of core routers, switches, firewalls, Intrusion Prevention System (IPS), Virtual Private Network (VPN) management systems, remote access systems, and highly technical network security monitoring equipment. The incumbent must work with other analysts to maintain and improve the wide area network as well as maintain a strong proactive security posture which includes investigating security events, assist in the remediation of virus and malware outbreaks and protecting the Departments systems from malicious or unwanted behaviors.

**TYPICAL DUTIES:**

Percentage		Job Description
Essential (E)/Marginal (M) <sup>1</sup>		
40%	E	Provide support for the Department's network security systems; including the Department's firewalls, Intrusion Detection System (IDS)/IPS, Enterprise Logging Systems and VPN gateways. Support to include; design implementation, integration and maintenance of existing and future systems. Coordinate firewall rule requirements for multi-tier applications hosted in a cross Agency environment.
20%	E	Act as a team lead and provide technical expertise in resolving anomalies associated with network devices and network software systems; implementation within the network of proprietary software, telecommunications software and integration of new telecommunications hardware. Install, configures and maintain software systems of enterprise network devices such as core routers, switches, and firewall devices. Provide risk assessment for new IT projects and develop mitigating strategies to ensure the integrity of the network and its attached systems.
20%	E	Performs technology research for network communication devices and their conformance to standards regarding multi-protocol network integration, routing protocols, Open Systems Interconnection (OSI) model relationships and network integration methodologies used to integrate various server operating systems such as Windows, Unix and VMware hosts.
10%	M	Provide network security support in the detection, notification, remediation and tracking of infected devices within the Department's computing environment.
10%	M	Performs technology research for network security systems and their conformance to Departmental standards and State mandated network security policies. Analyze new policy requirements and recommend technical solutions to bring the Department into compliance with these standards.

<sup>1</sup>ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

None. The incumbent will act as a team leader over subordinates in various aspects of network design, management and security

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

The incumbent must have knowledge of electronic computer operating systems; complex networking concepts and terms; data processing equipment and its capabilities and interfaces between networking hardware, computing hardware

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and software; and the requirements for installation and implementation of the most complex computer software systems and networks. The incumbent should have a full understanding of emerging technologies as related to computer networks, network security standards, tools and issues, virus mitigation, Firewalls, IPS/IDS, Domain Name Systems (DNS), Dynamic Host Configuration Protocol (DHCP) and shell script or Perl experience.

The incumbent must have the ability to analyze data; develop detailed program specifications; reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions; apply creative thinking in the design and development of methods of implementing communications applications; establish and maintain cooperative relationships with those contacted in the course of the work; be able to work under pressure; speak and write effectively; and prepare effective reports.

The incumbent must have a level of data processing analytical ability and expertise to permit the employee's exercise of sound judgment in all disciplines from conceptualization through detailed implementation on complex projects.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The incumbent is responsible for decisions, actions and consequences related to the design, installation, operation and security management of various communication applications used by the Department. Continued secure operation of these applications is essential to ensure that Caltrans personnel have access to mission-critical communications and services distributed throughout the State of California

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### PUBLIC AND INTERNAL CONTACTS

The incumbent will have frequent contact with managers and staff in all functional areas of Caltrans, District IT managers and staff, private consultants, and vendor representatives concerning the needs of development of system software projects. The incumbent may initiate contact with other departments, governmental agencies, or private companies concerning technology related to the security of the Caltrans network.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical Requirements: The incumbent may be required to sit for long periods of time using a keyboard, video display terminal and telephone and is expected to be aware of ergonomic principles and employ safe practices in the workplace.

Mental Requirements: The incumbent must have the ability to multi-task, adapt to changes in priorities and complete tasks or projects with short notice; adjust to new situations that warrant attention and resolution; be open to change and new information; and adapt behavioral and work methods in response to new information, changing conditions or unexpected obstacles.

Emotional Requirements: The incumbent must value culture diversity and other individual differences in the workforce; consider and respond appropriately to the needs, feelings and capabilities of different people in different situations, be tactful and treat others with respect.

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### WORK ENVIRONMENT

While at their base of operation, employee will work in a climate-controlled office under artificial lighting. The incumbent will be required to work for limited amounts of time in high noise level computer rooms with lower than normal temperatures

I certify that I have read, understand and can perform the duties listed above. If you believe you may require accommodation, please discuss this with the hiring supervisor.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

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EMPLOYEE (Print)

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EMPLOYEE (Signature)	DATE
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I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)	DATE
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